CONSERVATION DESIGN FORUM

Landscape Architecture • Community Planning • Ecological Restoration • Resource Management

Second-year Restoration Monitoring Report for the

BLACKWELL LANDFILL PRAIRIE RESTORATION

Warrenville, Illinois

Prepared for:

MWH
27755 Diehl Road
Suite 300
Warrenville, Illinois 60555

December 2002

MWH
MONTGOMERY WATSON HARZA

January 30, 2003

Timothy J. Prendiville
Remedial Project Manager
United States Environmental Protection Agency, Region 5
Mail Code SR-J6
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Second Year Prairie Restoration Monitoring Report
Blackwell Forest Preserve Landfill Site

Dear Mr. Prendiville:

On behalf of the Forest Preserve District of DuPage County (FPD), we are pleased to submit two copies of the 2002 Monitoring Report for the Blackwell Landfill Prairie Restoration (Second Year Report). In accordance with the December 2000 Revised Phase I Restoration Plan for the Revegetation of the Blackwell Landfill (Phase I Plan), this report summarizes the progress of the restoration strategy, second year maintenance tasks, and the vegetation growth assessment using the Floristic Quality Assessment (FQA) method. The Second Year Report was prepared by Conservation Design Forum, a subcontractor to MWH that provided technical oversight during the prairie restoration activities undertaken in 2002.

This Second Year Report indicates that:

- The 2002 prairie restoration activities were conducted in accordance with the December 2000 Phase I Plan.
- The second year prairie restoration results indicate that the vegetation on Blackwell Landfill is currently weedy with a limited number of native species evident. However, as stated in this Second Year Report, these results are typical for prairies undergoing maturation.
- It is expected that there will be an increase in prairie species diversity in the coming years as the prairie restoration matures.

In accordance with the December 2000 Phase I Plan, MWH and the FPD will continue to provide prairie restoration stewardship and will submit the Third Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration during the first quarter of 2004. If you have questions on this restoration, please contact us at (630) 836-8900.

Sincerely,

MWH

Jennifer M. Smith
Project Engineer

Walter G. Buettner, P.E.
Principal Engineer

cc: Rick Lanham – Illinois Environmental Protection Agency
Jerry Hartwig – Forest Preserve District of DuPage County
David Barritt – Chapman and Cutler (without attachments)

Attachments: 2002 Monitoring Report for the Blackwell Landfill Prairie Restoration

JMS/WGB/jmf
J:\209\0764 Blackwell\2090764n05.doc
2090764.01480

Second-year Restoration Monitoring Report for the

BLACKWELL LANDFILL PRAIRIE RESTORATION

Warrenville, Illinois

Prepared for:

MWH
27755 Diehl Road
Suite 300
Warrenville, Illinois 60555

December 2002

Conservation Design Forum
Project No. 02043.00

Prepared by: Kenneth Johnson Date: 26 NOVEMBER 2002
Kenneth C. Johnson
Botanist/Restoration Ecologist
Principal of Ecological Services

EXECUTIVE SUMMARY

- This report documents the restoration activities that occurred during the 2002 calendar year at the Blackwell Landfill prairie restoration.

- The primary stewardship activities involved weed control and overseeding. Some erosional rills were repaired as well.

- Two areas of the prairie landscape were impacted in 2002. One of these is located east of the "Tube Run" and was impacted by the installation of a surface water collection trench. The other area is located west and north of the Tube Run where re-grading of the Tube Run impacted portions of the prairie landscape. After these impacts occurred, the disturbed prairie areas were re-graded and seeded with prairie species.

- The results of the vegetation monitoring indicate that the prairie landscape is developing as expected and that the restoration is in its early stages of maturation.

INTRODUCTION

PROJECT SITE LOCATION AND PURPOSE

As depicted on EXHIBIT A – PROJECT LOCATION MAP, Blackwell Landfill is located north of Butterfield Road (Route 56), between Batavia Road and Winfield Road, in Warrenville, DuPage County, Illinois (SW1/4, Section 26, T39N, R9E). The site is owned and operated by the Forest Preserve District of DuPage County, Illinois. As detailed on EXHIBIT B – BLACKWELL LANDFILL PRAIRIE RESTORATION, the project area includes most of the slopes across the landfill at the forest preserve.

The purpose of the prairie restoration monitoring is two-fold. First, restoration monitoring is a fundamental component to al *de novo* ("from scratch") native landscape creations in order to assess the vegetation development from year to year and make recommendations as to proper land management. Another important purpose of the monitoring at this site is to provide data to the U.S. Environmental Protection Agency in regards to the development of the native landscape across the landfill slopes as outlined in the approved restoration plan (Montgomery Watson Harza and Conservation Design Forum, 2000).

RESTORATION ACTIVITIES CONDUCTED IN 2002

The following is a chronological list of the restoration activities that were conducted at the Blackwell Landfill Prairie Restoration site in 2002.

- In late June and early July, approximately 75% of the prairie was mowed with a tractor-mounted mower. A few areas where weeds were not a problem were not mowed; instead, these areas were hand weeded. During this same time period, a broad-leaf herbicide was applied to Field Thistle and Crown Vetch using backpack sprayers.
- In July and August, repairs to the Tube Run impacted portions of the adjacent prairie landscape. Another impact to the prairie occurred east of the Tube Run during the installation of a surface water collection trench (see EXHIBIT B for approximate locations of these areas). These disturbed areas were repaired and re-seeded in September. APPENDIX I is a list of the species used in this re-seeding effort. The species used were essentially the same as what was seeded in the 2001-installation.
- In late September, the dead vegetation (from the herbicide events in June and July) on the south and west slopes of the landfill was raked and removed from the site. The exposed soil was then seeded and covered with hydromulch. The contractor also re-graded and re-seeded the prairie located along the south side of the gravel haul road where some erosion had taken place (see APPENDIX I for the species used).
- The annual restoration monitoring event occurred on September 25th.

Overall, these management activities were performed in a timely and professional manner by the staff of McGinty Brothers, Inc., the landscape contractor.

MONITORING METHODOLOGY

Although there are many ways to monitor *de novo* ("from scratch") restorations and measure their performance, the approach utilized in this project emphasizes vegetation development and floristic quality assessment (FQA) methodology. In summary, the vegetation is sampled along transect lines established within representative portions of the project site, and a qualitative inventory of the vegetation across the entire landscape is recorded as well. These vegetation sampling protocols are repeated every year so that trends in floristic development can be monitoring over time.

A critical component in the evaluation of a restoration is to determine the extent of native species recruitment and establishment across the landscape. A useful method in the determination of floristic quality is through an analysis of the conservatism and diversity of species that are recorded during the monitoring event. Conservatism represents the degree to which an experienced field botanist has confidence that a given species is representative of a high-quality, remnant habitat (i.e., those natural areas with intact presettlement structure, composition, and processes). Native plants of a given region exhibit an observable range of conservatism, and each native species can be assigned a *coefficient of conservatism* (C value) ranging from 0 to 10, "weedy to conservative," that reflects its disposition.

The Mean C is the average coefficient of conservatism for a site. The floristic quality index (FQI) is a statistic derived by multiplying Mean C by the square root of the number of species inventoried. In general, site inventories with FQI values less than 20 are degraded or derelict plant communities, or are very small habitat remnants. Site inventories with FQI values in the twenties through low thirties suffer from various kinds of disturbance, but generally have potential for habitat restoration and recovery. When site inventories have FQI values in the middle thirties or higher, and/or have Mean C values of 3.4 or higher, one can be confident that there is sufficient native character present for the area to be at least regionally noteworthy. Site inventories with indices in the middle forties and higher are undoubtedly significant natural area remnants of statewide importance.

As management and time cause changes to take place, Mean C and FQI values will reflect the extent to which conservative species are being recruited and the floristic quality is improving. If an inventoried site has a large proportion of conservative plants, the Mean C is higher; in a degraded site, the Mean C is lower. The presence of a large proportion of adventive species and non-conservative native species suggest that an area is degraded. The Mean C and FQI values for a sampling transect are calculated for the transect as a whole and for the average quadrat.

Another useful measurement that is important in the evaluation of a *de novo* landscape restoration is that of the wetness value (W). Each plant species has been assigned a wetness category that indicates its probability of occurrence in a wetland. Plants are designated as *Obligate Wetland* (OBL=-5), *Facultative Wetland* (FACW=-3), *Facultative* (FAC=0), *Facultative Upland* (FACU=3), and *Obligate Upland* (UPL=5). For about 20% of our flora, a "+" or "-" sign has been attached to the three *Facultative* categories to express the exaggerated tendencies of those species. The "+" sign denotes that the species generally has a greater estimated probability of occurrence in wetlands; the "-" sign denotes that it generally has a lesser estimated probability of occurrence in wetlands. Mean wetness values can be compared

from year to year to gain an understanding on what type of plant species are establishing across the restoration.

Four (4) straight-line transect have been established across the prairie restoration. A description of each transect location is as follows, and their locations are depicted on EXHIBIT B. These are the same transects used in the restoration monitoring event that was conducted last year.

Transect 1 is located at vault cover "DV 10" in the northwestern portion of the site. The transect is oriented 0° north, and the first quadrat is placed 10 paces north of the vault cover.

Transect 2 is located at vault cover "DV 17" in the western portion of the site. The transect is oriented 90° east, and the first quadrat is placed 5 paces east of the vault cover.

Transect 3 is located at vault cover "DV 13" in the southeastern portion of the site. The transect is oriented 180° west. The first quadrat is placed 5 paces west of the vault cover.

Transect 4 is located at vault cover "DV 18" in the northeastern portion of the site. The transect is oriented 45° northeast. The first quadrat is placed 5 paces northeast of the vault cover.

A $0.25m^2$ quadrat is placed at 10-pace intervals along each transect line until 10 quadrats are sampled. The vegetation within each quadrat is identified and given a relative cover/abundance number from 1 to 5 as shown in the table below. A compass is used to stay on the correct orientation, and photographs are taken at the start of each transect in order to document the current site conditions.

COVER/ABUNDANCE NUMBER	APPROXIMATE COVER
1	1 to 5 plants present
2	5% to 25% cover
3	25% to 75% cover
4	Common/scattered throughout
5	Ubiquitous

The cover/abundance data is used to determine the relative importance value (RIV) for each species recorded along a transect. The RIV of each species is calculated by summing relative frequency and relative cover and dividing by 2. This and other information gathered via transect sampling offers important quantitative data that is used to interpret the development of the native landscape.

RESULTS AND DISCUSSION

VEGETATION MONITORING

The results of the plant inventories and transect sampling are presented below. The field work occurred on September 25th, 2002, and was performed by Kenneth Johnson. The weather conditions during the monitoring event were partly sunny, with air temperatures around 65° Fahrenheit, so sampling conditions were optimum. Photographs taken during the field work

are included at the back of the report. Refer to EXHIBIT B for a plan view of the project site.

General Plant Inventory and FQA Data

The results of the plant inventory and associated FQA data for the Blackwell Landfill prairie restoration are presented in Appendix II. The table below summarizes the total number of native species recorded during the inventory (NS), along with the percent that these native species comprise of all plants recorded (%TS). The last two columns are the native Mean C and FQI values. For comparative purposes, these same data are presented from the restoration monitoring conducted in 2001. Also shown is similar data from 1999 when a fall vegetation inventory of the landfill slopes was conducted (as part of the initial planning efforts for the landfill landscape, prior to any landscape restoration).

PLANT INVENTORY & FQA DATA SUMMARY			
Year	NS (%TS)	Mean C	FQI
1999	37 (44%)	1.8	11
2001	54 (48%)	1.8	13
2002	42 (46%)	2.2	14

The most frequently encountered species noted during the meander/inventory were Crown Vetch, Barnyard Grass, and foxtail grasses. Other relatively common plants that are found across the prairie restoration include Common Ragweed, Side-oats Grama, White Sweet Clover, Pinkweed, and Curly Dock.

The results of the inventory data indicate a positive trend in the establishment of the initial landscape restoration. Overall, the prairie appears to be developing as expected for having completed its second full growing season since installation in early summer of 2001. It is likely that these FQA values will not change significantly over the next several years without dedicated stewardship of the landscape via weed control, controlled burns, and native species enhancement.

Transect Sampling and FQA Data

The results of the four straight-line transects are presented in APPENDIX III. As stated above, each transect runs through a representative portion of the prairie landscape, and each transect line is the same as that sampled last year. Transect sampling helps to quantify the vegetation changes and landscape development at the site.

The table below presents a summary of the data collected for each transect. The aggregate transect data are presented separately from the average quadrat data. The number of native taxa (NT) is given; the native Mean C; and the native FQI. The results from last year's data are included for comparative purposes.

TRANSECT/YR	TRANSECT DATA SUMMARY			AVE QUADRAT DATA SUMMARY		
	NT	MEAN C	FQI	NT	MEAN C	FQI
T1						
2001	6	2.5	6	1.7	0.7	1
2002	11	1.8	6	2.4	2.7	4
T2						
2001	9	3.6	11	0.9	1.0	2
2002	8	2.5	7	1.4	2.6	4
T3						
2001	8	0.6	2	2.1	0.2	<1
2002	11	2.1	7	2.8	1.4	3
T4						
2001	8	0.6	2	2.4	0.1	<1
2002	13	3.0	11	3.3	4.4	7

Overall, there has been a slight increase in the number of native taxa recorded along the transects and within each quadrat. In regards to the transect data summary, Transects 1 and 2 show a slight decrease or no change in Mean C and FQI values. For Transect 2, the 2001 Mean C and FQI values (3.6 and 11) were uncharacteristically high. This was due to the fact that seven of the ten quadrats were entirely empty of native species; and most of the native species present in three quadrats were not weeds but were seeded prairie plants (e.g., Side-oats Grama, Indian Grass, etc.). Transects 3 and 4 show increases in Mean C and FQI values. In regards to the average quadrat data, all four transects show increases in native species occurrence and FQA values.

The four tables below summarize the relative importance values (RIV) for the top 50% of species from each transect. The results from the previous years sampling are included for comparative purposes. Brackets ([ ]) indicate the species was recorded in the sampling but not in the top 50% for that year, and a dash (-) indicates that it was not recorded during the sampling event. Following each native species is its assigned C value. Adventive species are in ALL CAPS. Species followed by an asterisk (*) were introduced to the site as part of the prairie seed installation in the summer of 2001.

TRANSECT 1	RIV	
Species (C value)	2001	2002
DIGITARIA ISCHAEMUM	24.4	-
Echinochloa crusgalli (0)	22.1	[5.2]
HIBISCUS TRIONUM	9.0	[2.0]
MELILOTUS ALBA	[2.0]	22.7
Bouteloua curtipendula (8) *	[1.5]	14.8
Ambrosia artemisiifolia (0)	-	12.3
FESTUCA ELATIOR	[2.0]	7.1

TRANSECT 2	RIV	
Species (C value)	2001	2002
CORONILLA VARIA	25.5	19.7
BROMUS INERMIS	11.1	[2.5]
ALLIARIA PETIOLATA	9.1	6.9
ATRIPLEX PATULA	5.9	-
SOIL	[2.1]	11.0
Bouteloua curtipendula (8) *	[2.7]	9.4
Panicum virgatum (5) *	-	5.6

TRANSECT 3	RIV	
Species (C value)	2001	2002
Echinochloa crusgalli (0)	21.9	14.0
SETARIA FABERI	21.9	16.7
Polygonum pensylvanicum (0)	7.7	12.5
Ambrosia artemisiifolia (0)	[2.5]	7.2

TRANSECT 4	RIV	
Species (C value)	2001	2002
LOLIUM MULTIFLORUM	14.7	[1.5]
Polygonum pensylvanicum (0)	12.1	-
Echinochloa crusgalli (0)	11.3	7.4
ABUTILON THEOPHRASTI	8.3	[2.6]
CHENOPODIUM ALBUM	7.6	-
SETARIA FABERI	-	14.7
Bouteloua curtipendula (8) *	-	14.4
SETARIA GLAUCA	[4.5]	6.3
Panicum virgatum (5) *	-	5.2
Rudbeckia hirta (1) *	[1.1]	4.4

To summarize for Transects 1 and 2, a continued effort to control White Sweet Clover (*Melilotus alba*) and Crown Vetch (*Coronilla varia*) is important and should reduce the presence of these weeds. All of Transect 3 and some of Transect 4 are located across portions of the restoration site that were heavily compacted just prior to seeding. And, these areas were the last to be seeded (late June of 2001). It will take another year to better assess the establishment of native species recruitment, in particular in the vicinity of Transect 3 (southeastern portion of the landfill).

Seeded Species Recruitment

An alphabetical list of the 37 native species that were seeded as part of the prairie landscape installation in May and June of 2001 are presented in the table below. Each species is listed along with its C value. If the species was recorded from the site during the monitoring event it is indicated with a "Y;" and if not it is indicated with a "N." The four columns to the right summarize the RIV of each species if recorded during the transect sampling, and these same data from 2001 are shown for comparison.

SEEDED SPECIES	RELATIVE IMPORTANCE VALUE							
(C Value)	T1		T2		T3		T4	
	01	02	01	02	01	02	01	02
Andropogon gerardii (5) Y	-	14.8	-	-	-	1.9	-	3.0
Andropogon scoparius (5) Y	-	1.6	-	-	-	-	-	1.5
Aquilegia canadensis (6) N	-	-	-	-	-	-	-	-
Aster azureus (8) N	-	-	-	-	-	-	-	-
Aster ericoides (5) N	-	-	-	-	-	-	-	-
Aster laevis (9) N	-	-	-	-	-	-	-	-
Aster novae-angliae (4) Y	-	-	-	-	-	-	-	-
Baptisia leucantha (8) N	-	-		-	-	-	-	-
Bouteloua curtipendula (8) Y	1.5	-	2.7	9.4	-	6.8	-	14.4
Coreopsis palmata (6) N	-	-	-	-	-	-	-	-
Coreopsis tripteris (5) N	-	-	-	-	-	-	-	-

SEEDED SPECIES	RELATIVE IMPORTANCE VALUE							
(C Value)	T1		T2		T3		T4	
	01	02	01	02	01	02	01	02
Desmodium canadense (4) N	-	-	-	-	-	-	-	-
Echinacea purpurea (3) Y	1.5	-	2.1	-	-	-	-	-
Elymus canadensis (4) Y	-	-	-	-	-	1.5	-	1.1
Eryngium yuccifolium (9) N	-	-	-	-	-	-	-	-
Helianthus mollis (9) Y	-	-	-	-	-	-	-	-
Helianthus rigidus (8) N	-	-	-	-	-	-	-	-
Heliopsis helianthoides (5) Y	-	1.6	1.6	-	-	-	-	2.2
Lespedeza capitata (4) N	-	-	-	-	-	-	-	-
Liatris spicata (6) N	-	-	-	-	-	-	-	-
Monarda fistulosa (4) Y	-	-	1.6	-	-	-	1.1	-
Panicum virgatum (5) Y	-	-	-	5.6	-	5.6	-	5.2
Parthenium integrifolium (8) N	-	-	-	-	-	-	-	-
Penstemon digitalis (4) N	-	-	-	-	-	-	-	-
Petalostemum purpureum (9) N	-	-	-	-	-	-	-	-
Physostegia virginiana (6) N	-	-	-	-	-	-	-	-
Pycnanthemum virginianum (5) N	-	-	-	-	-	-	-	-
Ratibida pinnata (4) N	-	-	-	-	-	-	-	-
Rudbeckia hirta (1) Y	3.5	2.0	2.1	-	-	-	1.1	4.4
Silphium integrifolium (5) N	-	-	-	-	-	-	-	-
Silphium laciniatum (5) N	-	-	-	-	-	-	-	-
Silphium terebinthinaceum (5) N	-	-	-	-	-	-	-	-
Solidago graminifolia (4) N	-	-	-	-	-	-	-	-
Solidago nemoralis (4) N	-	-	-	-	-	-	-	-
Solidago rigida (4) N	-	-	-	-	-	-	-	-
Sorghastrum nutans (5) Y	-	-	1.6	5.0	-	-	-	1.8

In summary, twelve (12) of the 37 seeded species were recorded during the monitoring event in August of 2002; ten (10) were recorded in 2001. None of the seeded species were in the top 50% RIV in 2002. Future restoration monitoring should be compared to these data in order to show trends in the establishment of the intended native landscape. With time and proper land management there should be an increase in native species recruitment and quality across all areas of the restoration site.

The number of seeded species recorded during the monitoring event and their Mean C value is summarized in the table below. The data are compared to the 2001 monitoring results and the initial seed matrix. With time and proper land management there should be an increase in the number of seeded species recorded from the site.

SEEDED SPECIES RECRUITMENT		
YEAR	NO. SPECIES	MEAN C
2001 Seeding	37	5.6
2001	10	4.5
2002	12	4.8

The native Mean W of the site is summarized in the table below, and includes the same value from the 2001 monitoring event. These are compared to the Mean W of the 37 seeded species. A trend downward in Mean W values is typical of early restoration sites such as Blackwell.

MEAN W OF RESTORATION SITE		
2001 SEEDING	2001	2002
2.5	1.5	1.3

GENERAL OBSERVATIONS AND SITE CONDITIONS

- Much of the seed from Side-oats Grama and other prairie species has matured and can be collected and distributed across the site.

SUMMARY

As summarized above, land management activities across the Blackwell Landfill Prairie Restoration in 2002 included weed control via mowing and herbicide applications; overseeding; and erosion repair. These are necessary management activities that will be required, along with burn management, over the next several years in order for the landscape to reach its full desired aesthetic and value as a native prairie restoration.

The results of the vegetation monitoring data are typical of landscape restorations that are in their early years of development. In general, after three or four years, approximately 40% of the seeded species should be present; and Mean C and FQI values should be trending in an upward direction. From year to year, native prairie species should show an increase in their relative importance values.

GENERAL REFERENCES

The following sources were referenced for completion of this document.

Conservation Design Forum. 2001. First Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Montgomery Watson and Conservation Design Forum. 2001. Contractor Bid Package for Phase 1 Prairie Landscape Installation and Post-planting Maintenance. Warrenville, IL.

Montgomery Watson and Conservation Design Forum. 2000. Phase 1 Restoration Plan for the Revegetation of the Blackwell Landfill. Warrenville, IL.

Swink, F. and G. Wilhelm. 1994. Plants of the Chicago Region, 4th edition. Indiana Academy of Science, Indianapolis, IN.

Taft, J. G. Wilhelm, D. Ladd, and L. Masters. 1997. Floristic Quality Assessment for Vegetation in Illinois: A Method for Assessing Vegetation Integrity. Erigenia 14, pp. 3-95.

Wilhelm, G. and L. Masters. 1999. Floristic Quality Assessment and Computer Applications. Conservation Research Institute. Elmhurst, IL.

APPENDICES

APPENDIX I

SPECIES RE-SEEDING LIST

The plants listed in the table below were used to re-seed portions of the prairie landscape at the Blackwell Landfill Prairie Restoration site in the fall of 2002. Re-seeding occurred in four areas—

- immediately west and north of the Tub Run;
- east of the Tube Run;
- on portions of the steep slopes on the west side of the landfill;
- along a portion of the gravel haul road where erosional rills were repaired.

SPECIES	COMMON NAME	LBS/ACRE
Andropogon gerardii	Big Bluestem Grass	5.0
Andropogon scoparius	Little Bluestem Grass	5.0
Asclepias syriaca	Common Milkweed	0.063
Aster ericoides	Heath Aster	0.031
Aster novae-angliae	New England Aster	0.250
Astragalus canadensis	Canada Milk Vetch	0.063
Baptisia leucantha	White Wild Indigo	0.063
Bouteloua curtipendula	Side-oats Grama	5.0
Cassia fasciculata	Partridge Pea	0.125
Desmodium canadense	Canada Tick Trefoil	0.031
Echinacea pallida	Pale Purple Coneflower	0.063
Echinacea purpurea	Broad-leaved Purple Coneflower	0.375
Elymus canadensis	Wild Canada Rye	8.0
Eryngium yuccifolium	Rattlesnake Master	0.375
Heliopsis helianthoides	False Sunflower	0.125
Lespedeza capitata	Round-headed Bush Clover	0.125
Monarda fistulosa	Wild Bergamot	0.031
Panicum virgatum	Switch Grass	1.0
Parthenium integrifolium	Wild Quinine	0.375
Penstemon digitalis	Foxglove Beardtongue	0.063
Petalostemum purpureum	Purple Prairie Clover	0.250
Ratibida pinnata	Yellow Coneflower	0.250
Rudbeckia hirta	Black-eyed Susan	0.375
Rudbeckia subtomentosa	Sweet Black-eyed Susan	0.063
Solidago rigida	Stiff Goldenrod	0.375
Sorghastrum nutans	Indian Grass	12.0

APPENDIX II

VEGETATION INVENTORY & FLORISTIC QUALITY ASSESSMENT

The following is a summary of the inventory data generated using Wilhelm and Masters's *Floristic Quality Assessment and Computer Applications*, 1999. Plant nomenclature follows Swink and Wilhelm's *Plants of the Chicago Region, 1994*. More information on floristic quality assessment methodology can be found in *Erigenia*, number 15, November, 1997. The plant inventory and assessment is divided into 2 sections as follows.

Section 1 includes three tables that summarize the inventory assessment data. The table to the left is an analysis of the floristic quality of the project area. In addition to listing the number of native species and total number of species, the mean coefficient of conservatism (MEAN C), floristic quality index (FQI), and mean wetness (MEAN W) values are presented. These are calculated once for native species only, and a second time including adventive species (W/Adventives). The two other tables summarize the number and percent of species in each physiognomic group (A = annual, B = biennial, P = perennial, W = woody, H = herbaceous).

Section 2 includes the plant inventory arranged alphabetically, with each species preceded by its database acronym and coefficient of conservatism (C = 0 to 10, weedy to conservative); and followed by its wetness coefficient (W = -5 to +5, wet to dry), corresponding national wetland indicator status (OBL = obligate wetland species, FAC = facultative species, UPL = upland species), physiognomic group, and common name. Adventive species are written in ALL CAPS and have an asterisk (*) for their C value.

The Mean C is the average coefficient of conservatism for the site. The FQI is derived by multiplying Mean C by the square root of the number of species present. In general, sites with FQI values less than twenty are degraded or derelict plant communities, or are very small habitat remnants. Sites with FQI values in the twenties through low thirties suffer from various kinds of disturbance, but generally have potential for habitat restoration and recovery. When sites have FQI values in the middle thirties or higher, one can be confident that there is sufficient native character present for the area to be at least regionally noteworthy. Sites with indices in the middle forties and higher are often also statewide significant natural areas.

Site: **Blackwell Landfill Prairie Restoration**
Locale: Warrenville - DuPage County, IL
Date: September 25, 2002
By: Conservation Design Forum (Johnson)
File: c:\fqa\studies\blackwell2002inv.inv

Section 1. Summary Tables

FLORISTIC QUALITY DATA		Native			Adventive		
42	NATIVE SPECIES	Tree	4	4.4%	Tree	1	1.1%
91	Total Species	Shrub	0	0.0%	Shrub	1	1.1%
2.2	NATIVE MEAN C	W-Vine	2	2.2%	W-Vine	0	0.0%
1.0	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
14.0	NATIVE FQI	P-Forb	16	17.6%	P-Forb	13	14.3%
9.5	W/Adventives	B-Forb	1	1.1%	B-Forb	11	12.1%
1.3	NATIVE MEAN W	A-Forb	9	9.9%	A-Forb	11	12.1%
2.2	W/Adventives	P-Grass	7	7.7%	P-Grass	5	5.5%
AVG:	Faculative (-)	A-Grass	3	3.3%	A-Grass	7	7.7%
		P-Sedge	0	0.0%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Cryptogam	0	0.0%			

Section 2. Species Inventory

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0	ABUTILON THEOPHRASTI	4	FACU-	Ad A-Forb	VELVETLEAF
ACENEG	0	Acer negundo	-2	FACW-	Nt Tree	BOX ELDER
ALLPET	0	ALLIARIA PETIOLATA	0	FAC	Ad B-Forb	GARLIC MUSTARD
AMAPOW	0	AMARANTHUS POWELLII	5	UPL	Ad A-Forb	TALL AMARANTH
AMBARE	0	Ambrosia artemisiifolia elatior	3	FACU	Nt A-Forb	COMMON RAGWEED
AMBTRI	0	Ambrosia trifida	-1	FAC+	Nt A-Forb	GIANT RAGWEED
ANDGER	5	Andropogon gerardii	1	FAC-	Nt P-Grass	BIG BLUESTEM GRASS
ANDSCO	5	Andropogon scoparius	4	FACU-	Nt P-Grass	LITTLE BLUESTEM GRASS
ARCMIN	0	ARCTIUM MINUS	5	UPL	Ad B-Forb	COMMON BURDOCK
ASCSYR	0	Asclepias syriaca	5	UPL	Nt P-Forb	COMMON MILKWEED
ASCVER	1	Asclepias verticillata	5	UPL	Nt P-Forb	WHORLED MILKWEED
ASTNOV	4	Aster novae-angliae	-3	FACW	Nt P-Forb	NEW ENGLAND ASTER
ASTPIL	0	Aster pilosus	2	FACU+	Nt P-Forb	HAIRY ASTER
ASTCAN	10	Astragalus canadensis	5	[UPL]	Nt P-Forb	CANADIAN MILK VETCH
ATRPAT	0	ATRIPLEX PATULA	-2	FACW-	Ad A-Forb	COMMON ORACH
BARVUL	0	BARBAREA VULGARIS	0	FAC	Ad B-Forb	YELLOW ROCKET
BIDFRO	1	Bidens frondosa	-3	FACW	Nt A-Forb	COMMON BEGGAR'S TICKS
BOUCUR	8	Bouteloua curtipendula	5	UPL	Nt P-Grass	SIDE-OATS GRAMA
BROINE	0	BROMUS INERMIS	5	UPL	Ad P-Grass	HUNGARIAN BROME
BROJAP	0	BROMUS JAPONICUS	3	FACU	Ad A-Grass	JAPANESE CHESS
CHEALB	0	CHENOPODIUM ALBUM	1	FAC-	Ad A-Forb	LAMB'S QUARTERS
CICINT	0	CICHORIUM INTYBUS	5	UPL	Ad P-Forb	CHICORY
CIRARV	0	CIRSIUM ARVENSE	5	UPL	Ad P-Forb	FIELD THISTLE
CIRVUL	0	CIRSIUM VULGARE	4	FACU-	Ad B-Forb	BULL THISTLE
CONARV	0	*CONVOLVULUS ARVENSIS*	5	UPL	Ad P-Forb	FIELD BINDWEED
CONSEP	1	Convolvulus sepium	0	FAC	Nt P-Forb	HEDGE BINDWEED
CORVAR	0	CORONILLA VARIA	5	UPL	Ad P-Forb	CROWN VETCH
DACGLO	0	DACTYLIS GLOMERATA	3	FACU	Ad P-Grass	ORCHARD GRASS
DAUCAR	0	DAUCUS CAROTA	5	UPL	Ad B-Forb	QUEEN ANNE'S LACE
DIPLAC	0	DIPSACUS LACINIATUS	5	UPL	Ad B-Forb	CUT-LEAVED TEASEL
ECHPUR	3	Echinacea purpurea	5	UPL	Nt P-Forb	BROAD-LEAVED PURPLE CONEFLOWER
ECHCRU	0	Echinochloa crusgalli	-3	FACW	Nt A-Grass	BARNYARD GRASS
ELYCAN	4	Elymus canadensis	1	FAC-	Nt P-Grass	CANADA WILD RYE
ERACIL	0	ERAGROSTIS CILIANENSIS	5	UPL	Ad A-Grass	STINK GRASS
ERASPE	3	Eragrostis spectabilis	5	UPL	Nt P-Grass	PURPLE LOVE GRASS
ERICAN	0	Erigeron canadensis	1	FAC-	Nt A-Forb	HORSEWEED
ERIVIL	0	ERIOCHLOA VILLOSA	5	UPL	Ad A-Grass	CHINESE CUP GRASS
EUPMAA	0	Euphorbia maculata	3	FACU	Nt A-Forb	EYEBANE
FESELA	0	FESTUCA ELATIOR	2	FACU+	Ad P-Grass	TALL FESCUE
GLETRI	2	Gleditsia triacanthos	0	FAC	Nt Tree	HONEY LOCUST
HELMOL	9	Helianthus mollis	5	UPL	Nt P-Forb	DOWNY SUNFLOWER
HELHEL	5	Heliopsis helianthoides	5	UPL	Nt P-Forb	FALSE SUNFLOWER
HIBTRI	0	HIBISCUS TRIONUM	5	UPL	Ad A-Forb	FLOWER-OF-AN-HOUR
JUNVIC	2	Juniperus virginiana crebra	3	FACU	Nt Tree	RED CEDAR
LACSAL	0	LACTUCA SALIGNA	3	FACU	Ad B-Forb	WILLOW LETTUCE
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad B-Forb	PRICKLY LETTUCE
LEOCAR	0	LEONURUS CARDIACA	5	UPL	Ad P-Forb	MOTHERWORT

LEPVIR	0	Lepidium virginicum	4	FACU-	Nt A-Forb	COMMON PEPPERCRESS
LINUSI	0	LINUM USITATISSIMUM	5	UPL	Ad A-Forb	COMMON FLAX
LOLMUL	0	LOLIUM MULTIFLORUM	5	UPL	Ad A-Grass	ITALIAN RYE GRASS
LOTCOR	0	LOTUS CORNICULATUS	1	FAC-	Ad P-Forb	BIRD'S FOOT TREFOIL
LYCALB	0	LYCHNIS ALBA	5	UPL	Ad A-Forb	WHITE CAMPION
MEDSAT	0	MEDICAGO SATIVA	5	UPL	Ad P-Forb	ALFALFA
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	WHITE SWEET CLOVER
MELLOF	0	MELILOTUS OFFICINALIS	3	FACU	Ad B-Forb	YELLOW SWEET CLOVER
MONFIS	4	Monarda fistulosa	3	FACU	Nt P-Forb	WILD BERGAMOT
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	CATNIP
OENBIE	0	Oenothera biennis	3	FACU	Nt B-Forb	COMMON EVENING PRIMROSE
PANCAP	1	Panicum capillare	0	FAC	Nt A-Grass	OLD WITCH GRASS
PANDII	0	Panicum dichotomiflorum	-2	FACW-	Nt A-Grass	KNEE GRASS
PANVIR	5	Panicum virgatum	-1	FAC+	Nt P-Grass	SWITCH GRASS
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad P-Grass	REED CANARY GRASS
PHYSUB	0	Physalis subglabrata	5	UPL	Nt P-Forb	TALL GROUND CHERRY
PHYAME	1	Phytolacca americana	1	FAC-	Nt P-Forb	POKEWEED
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	RED-STALKED PLANTAIN
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	KENTUCKY BLUE GRASS
POLCON	0	POLYGONUM CONVOLVULUS	1	FAC-	Ad A-Forb	BLACK BINDWEED
POLLAP	0	Polygonum lapathifolium	-4	FACW+	Nt A-Forb	HEARTSEASE
POLPEN	0	Polygonum pensylvanicum	-4	FACW+	Nt A-Forb	PINKWEED
POLPER	0	POLYGONUM PERSICARIA	1	[FAC-]	Ad A-Forb	LADY'S THUMB
POPDEL	2	Populus deltoides	-1	FAC+	Nt Tree	EASTERN COTTONWOOD
RHACAT	0	RHAMNUS CATHARTICA	3	FACU	Ad Shrub	COMMON BUCKTHORN
RHURAD	2	Rhus radicans	-1	FAC+	Nt W-Vine	POISON IVY
RUDHIR	1	Rudbeckia hirta	3	FACU	Nt P-Forb	BLACK-EYED SUSAN
RUMCRI	0	RUMEX CRISPUS	-1	FAC+	Ad P-Forb	CURLY DOCK
SETFAB	0	SETARIA FABERI	2	FACU+	Ad A-Grass	GIANT FOXTAIL
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	YELLOW FOXTAIL
SETVIM	0	SETARIA VIRIDIS MAJOR	5	UPL	Ad A-Grass	GIANT GREEN FOXTAIL
SOLCAR	0	SOLANUM CAROLINENSE	4	FACU-	Ad P-Forb	HORSE NETTLE
SOLALT	1	Solidago altissima	3	FACU	Nt P-Forb	TALL GOLDENROD
SOLCAN	1	Solidago canadensis	3	FACU	Nt P-Forb	CANADA GOLDENROD
SONOLE	0	SONCHUS OLERACEUS	5	[UPL]	Ad A-Forb	STORE-FRONT SOW THISTLE
SORNUT	5	Sorghastrum nutans	2	FACU+	Nt P-Grass	INDIAN GRASS
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	COMMON DANDELION
TEUCAN	3	Teucrium canadense	-3	FACW	Nt P-Forb	GERMANDER
TRIHYB	0	TRIFOLIUM HYBRIDUM	1	FAC-	Ad P-Forb	ALSIKE CLOVER
TRIPRA	0	TRIFOLIUM PRATENSE	5	UPL	Ad P-Forb	RED CLOVER
ULMPUM	0	ULMUS PUMILA	5	UPL	Ad Tree	SIBERIAN ELM
VERBLT	0	VERBASCUM BLATTARIA	3	FACU	Ad B-Forb	MOTH MULLEIN
VITRIP	2	Vitis riparia	-2	FACW-	Nt W-Vine	RIVERBANK GRAPE
XANSTR	0	XANTHIUM STRUMARIUM	0	FAC	Ad A-Forb	COCKLEBUR

APPENDIX III

TRANSECT SAMPLING & FLORISTIC QUALITY ASSESSMENT

The following is a summary of the transect data generated using Wilhelm and Masters's *Floristic Quality Assessment and Computer Applications*, 1999. Plant nomenclature follows Swink and Wilhelm's *Plants of the Chicago Region, 1994*. More information on floristic quality assessment methodology can be found in *Erigenia*, number 15, November, 1997. The results of each transect are presented in four sections as described below.

Section 1 is a summary of the quadrat data for the transect. The data listed for each quadrat includes the mean coefficient of conservatism (MC), floristic quality index (FQI), and mean wetness (MW). These values are calculated once for native species only, and a second time including adventive species (W/Ad). Also presented for each quadrat are the number of native species (NS), and number of total species (TS). Shown below each of these columns are their values averaged per quadrat (AVG), and standard deviation (STD). The columns to the far right are sequential averages of the wetness coefficients ([(x+n+y)/3]), data that can be useful in the evaluation of plants along a slope or topographical catena.

Section 2 is a summary these same values for the entire transect. First, there is a tabulation of the species in each conservatism category (0 to 10) and the percentage of species in three conservatism classes (0 to 3, 4 to 6, 7 to 10). The two columns below summarize the number and percent of species in each physiognomic group (A=annual, B=biennial, P=perennial, W=woody, H=herbaceous). Next, there is a summary of the relative importance values (RIV) of each physiognomic group. These values are calculated by summing the frequency (FRQ) and the cover class (COV) of each group found in the transect then dividing by two.

Section 3 is a table that lists the relative importance values for each species found in the transect sampling, calculated in the same manner described above. Each scientific name is followed by its coefficient of conservatism and wetland indicator status.

Section 4 is the transect inventory arranged alphabetically to scientific name. This is followed by a list of the quadrats along the transect string that includes the cover class value determined for each species recorded in the quadrat.

Site: Blackwell Landfill Prairie - **Transect 1**
Locale: Warrenville - DuPage Co., IL
Date: September 25, 2002
By: CDF (Johnson)
File: c:\fqa\studies\blackwell2002t1.tra

Section 1. Summary of Quadrat Data

	TRANSECT DATA, QUADRAT									
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	4.0	2.7	5.7	4.6	4.0	3.7	2	3	3.7	3.3
2	4.0	2.0	5.7	4.0	3.5	3.0	2	4	2.1	2.4
3	0.0	0.0	0.0	0.0	-1.3	0.4	3	7	1.3	1.7
4	2.7	1.6	4.6	3.6	1.7	1.6	3	5	0.7	1.2
5	2.3	1.5	4.5	3.7	1.8	1.7	4	6	1.8	1.9
6	4.3	1.9	7.5	4.9	2.0	2.6	3	7	2.2	2.4
7	2.7	2.0	4.6	4.0	3.0	3.0	3	4	2.7	3.0
8	0.5	0.3	0.7	0.5	3.0	3.5	2	4	3.7	3.6
9	6.5	2.6	9.2	5.8	5.0	4.4	2	5	2.7	3.5
10	0.0	0.0	0.0	0.0	0.0	2.5	0	2	2.5	3.4
AVG	2.7	1.4	4.2	3.1	2.3	2.6	2.4	4.7		
STD	2.1	1.0	3.1	2.1	1.9	1.2	1.1	1.6		

Section 2. Summary of Transect Data

C	NUMBER	
0	6	
1	2	
2	0	0 to 3
3	0	72.7%
4	0	
5	2	
6	0	4 to 7
7	0	18.2%
8	1	
9	0	8 to 10
10	0	9.1%

11	NATIVE SPECIES
22	TOTAL SPECIES
1.8	NATIVE MEAN C
0.9	W/Adventives
6.0	NATIVE FQI
4.3	W/Adventives
1.4	NATIVE MEAN W
1.9	W/Adventives

Native	11	50.0%	Adventive	11	50.0%
Tree	0	0.0%	Tree	0	0.0%
Shrub	0	0.0%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	3	13.6%	P-Forb	2	9.1%
B-Forb	0	0.0%	B-Forb	4	18.2%
A-Forb	4	18.2%	A-Forb	2	9.1%
P-Grass	2	9.1%	P-Grass	1	4.5%
A-Grass	2	9.1%	A-Grass	2	9.1%
P-Sedge	0	0.0%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
Cryptogam	0	0.0%			

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Ad B-Forb	12	33	25.5	32.4	28.9
Nt A-Forb	9	17	19.1	16.7	17.9
Nt P-Grass	8	16	17.0	15.7	16.4
Ad P-Forb	3	10	6.4	9.8	8.1
Nt A-Grass	4	6	8.5	5.9	7.2
Ad P-Grass	3	8	6.4	7.8	7.1
Nt P-Forb	3	5	6.4	4.9	5.6
Ad A-Forb	3	4	6.4	3.9	5.2
Ad A-Grass	2	3	4.3	2.9	3.6

Section 3. Relative Importance Values

SPECIES RELATIVE IMPORTANCE VALUES

SCIENTIFIC NAME	C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
MELILOTUS ALBA	0	FACU	8	29	17.0	28.4	22.7
Bouteloua curtipendula	8	UPL	7	15	14.9	14.7	14.8
Ambrosia artemisiifolia elatior	0	FACU	6	12	12.8	11.8	12.3
FESTUCA ELATIOR	0	FACU+	3	8	6.4	7.8	7.1
MEDICAGO SATIVA	0	UPL	2	7	4.3	6.9	5.6
Echinochloa crusgalli	0	FACW	3	4	6.4	3.9	5.2
ABUTILON THEOPHRASTI	0	FACU-	2	2	4.3	2.0	3.1
BARBAREA VULGARIS	0	FAC	2	2	4.3	2.0	3.1
LOTUS CORNICULATUS	0	FAC-	1	3	2.1	2.9	2.5
Ambrosia trifida	0	FAC+	1	2	2.1	2.0	2.0
Aster pilosus	0	FACU+	1	2	2.1	2.0	2.0
HIBISCUS TRIONUM	0	UPL	1	2	2.1	2.0	2.0
Panicum capillare	1	FAC	1	2	2.1	2.0	2.0
Polygonum pensylvanicum	0	FACW+	1	2	2.1	2.0	2.0
Rudbeckia hirta	1	FACU	1	2	2.1	2.0	2.0
SETARIA GLAUCA	0	FAC	1	2	2.1	2.0	2.0
Andropogon scoparius	5	FACU-	1	1	2.1	1.0	1.6
DAUCUS CAROTA	0	UPL	1	1	2.1	1.0	1.6
Erigeron canadensis	0	FAC-	1	1	2.1	1.0	1.6
Heliopsis helianthoides	5	UPL	1	1	2.1	1.0	1.6
LACTUCA SERRIOLA	0	FAC	1	1	2.1	1.0	1.6
SETARIA FABERI	0	FACU+	1	1	2.1	1.0	1.6
			47	102			

Section 4. Plant Inventory & Transect String

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0	ABUTILON THEOPHRASTI	4	FACU-	Ad A-Forb	VELVETLEAF
AMBARE	0	Ambrosia artemisiifolia elatior	3	FACU	Nt A-Forb	COMMON RAGWEED
AMBTRI	0	Ambrosia trifida	-1	FAC+	Nt A-Forb	GIANT RAGWEED
ANDSCO	5	Andropogon scoparius	4	FACU-	Nt P-Grass	LITTLE BLUESTEM GRASS
ASTPIL	0	Aster pilosus	2	FACU+	Nt P-Forb	HAIRY ASTER
BARVUL	0	BARBAREA VULGARIS	0	FAC	Ad B-Forb	YELLOW ROCKET
BOUCUR	8	Bouteloua curtipendula	5	UPL	Nt P-Grass	SIDE-OATS GRAMA
DAUCAR	0	DAUCUS CAROTA	5	UPL	Ad B-Forb	QUEEN ANNE'S LACE
ECHCRU	0	Echinochloa crusgalli	-3	FACW	Nt A-Grass	BARNYARD GRASS
ERICAN	0	Erigeron canadensis	1	FAC-	Nt A-Forb	HORSEWEED
FESELA	0	FESTUCA ELATIOR	2	FACU+	Ad P-Grass	TALL FESCUE
HELHEL	5	Heliopsis helianthoides	5	UPL	Nt P-Forb	FALSE SUNFLOWER
HIBTRI	0	HIBISCUS TRIONUM	5	UPL	Ad A-Forb	FLOWER-OF-AN-HOUR
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad B-Forb	PRICKLY LETTUCE
LOTCOR	0	LOTUS CORNICULATUS	1	FAC-	Ad P-Forb	BIRD'S FOOT TREFOIL
MEDSAT	0	MEDICAGO SATIVA	5	UPL	Ad P-Forb	ALFALFA
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	WHITE SWEET CLOVER
PANCAP	1	Panicum capillare	0	FAC	Nt A-Grass	OLD WITCH GRASS
POLPEN	0	Polygonum pensylvanicum	-4	FACW+	Nt A-Forb	PINKWEED
RUDHIR	1	Rudbeckia hirta	3	FACU	Nt P-Forb	BLACK-EYED SUSAN
SETFAB	0	SETARIA FABERI	2	FACU+	Ad A-Grass	GIANT FOXTAIL

SETGLA 0 SETARIA GLAUCA 0 FAC Ad A-Grass YELLOW FOXTAIL

TRANSECT STRING

>

QUAD	1
ACRONYM	COVER
AMBARE	3
BOUCUR	1
MELALB	4

>

QUAD	2
ACRONYM	COVER
ASTPIL	2
BOUCUR	2
FESELA	3
MELALB	3

>

QUAD	3
ACRONYM	COVER
ABUTHE	1
AMBARE	2
BARVUL	1
ECHCRU	1
LACSER	1
MELALB	3
POLPEN	2

>

QUAD	4
ACRONYM	COVER
AMBARE	2
BOUCUR	2
ECHCRU	2
MELALB	4
SETGLA	2

>

QUAD	5
ACRONYM	COVER
AMBARE	1
AMBTRI	2
BOUCUR	2
FESELA	3
LOTCOR	3
PANCAP	2

>

QUAD	6
ACRONYM	COVER
ANDSCO	1
BOUCUR	4
ECHCRU	1
FESELA	2
HIBTRI	2
MELALB	2
SETFAB	1

>

QUAD	7
ACRONYM	COVER
AMBARE	2
BOUCUR	2
ERICAN	1
MELALB	4

>

QUAD	8
ACRONYM	COVER
AMBARE	2
DAUCAR	1
MELALB	5
RUDHIR	2

>

QUAD	9
ACRONYM	COVER
ABUTHE	1
BOUCUR	2
HELHEL	1
MEDSAT	2
MELALB	4

>

QUAD	10
ACRONYM	COVER
BARVUL	1
MEDSAT	5

Site: Blackwell Landfill Prairie - **Transect 2**
Locale: Warrenville - DuPage Co., IL
Date: September 25, 2002
By: CDF (Johnson)
File: c:\fqa\studies\blackwell2002t2.tra

Section 1. Summary of Quadrat Data

	TRANSECT DATA, QUADRAT									
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	2.7	2.0	4.6	4.0	0.7	1.0	3	4	1.3	1.9
2	6.0	4.5	10.4	9.0	2.0	2.8	3	4	1.9	2.4
3	0.5	0.2	0.7	0.4	3.0	3.4	2	5	2.5	3.0
4	4.5	2.3	6.4	4.5	2.5	2.8	2	4	2.5	2.7
5	6.5	6.5	9.2	9.2	2.0	2.0	2	2	2.5	2.5
6	1.0	0.3	1.0	0.5	3.0	2.8	1	4	1.7	2.5
7	0.0	0.0	0.0	0.0	0.0	2.8	0	4	1.0	2.7
8	0.0	0.0	0.0	0.0	0.0	2.5	0	2	0.7	2.7
9	5.0	1.3	5.0	2.5	2.0	3.0	1	4	0.7	3.5
10	0.0	0.0	0.0	0.0	0.0	5.0	0	2	1.0	4.0
AVG	2.6	1.7	3.7	3.0	1.5	2.8	1.4	3.5		
STD	2.7	2.2	4.0	3.6	1.2	1.0	1.2	1.1		

Section 2. Summary of Transect Data

C	NUMBER	
0	3	
1	2	
2	0	0 to 3
3	0	62.5%
4	0	
5	2	
6	0	4 to 7
7	0	25.0%
8	1	
9	0	8 to 10
10	0	12.5%

8	NATIVE SPECIES
20	TOTAL SPECIES
2.5	NATIVE MEAN C
1.0	W/Adventives
7.1	NATIVE FQI
4.5	W/Adventives
1.1	NATIVE MEAN W
2.2	W/Adventives

Native	8	40.0%	Adventive	12	60.0%
Tree	0	0.0%	Tree	0	0.0%
Shrub	0	0.0%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	2	10.0%	P-Forb	4	20.0%
B-Forb	0	0.0%	B-Forb	3	15.0%
A-Forb	2	10.0%	A-Forb	3	15.0%
P-Grass	3	15.0%	P-Grass	1	5.0%
A-Grass	1	5.0%	A-Grass	1	5.0%
P-Sedge	0	0.0%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
Cryptogam	0	0.0%			

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Ad P-Forb	10	28	28.6	38.4	33.5
Nt P-Grass	8	16	22.9	21.9	22.4
Ad B-Forb	6	9	17.1	12.3	14.7
Ad A-Forb	3	5	8.6	6.8	7.7
Nt P-Forb	3	4	8.6	5.5	7.0
Nt A-Forb	2	3	5.7	4.1	4.9
Nt A-Grass	1	3	2.9	4.1	3.5
Ad A-Grass	1	3	2.9	4.1	3.5
Ad P-Grass	1	2	2.9	2.7	2.8

Section 3. Relative Importance Values

SPECIES RELATIVE IMPORTANCE VALUES

SCIENTIFIC NAME	C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
CORONILLA VARIA	0	UPL	6	20	15.8	23.5	19.7
SOIL	0		3	12	7.9	14.1	11.0
Bouteloua curtipendula	8	UPL	4	7	10.5	8.2	9.4
ALLIARIA PETIOLATA	0	FAC	3	5	7.9	5.9	6.9
Panicum virgatum	5	FAC+	2	5	5.3	5.9	5.6
Sorghastrum nutans	5	FACU+	2	4	5.3	4.7	5.0
TARAXACUM OFFICINALE	0	FACU	2	4	5.3	4.7	5.0
DIPSACUS LACINIATUS	0	UPL	2	3	5.3	3.5	4.4
Solidago altissima	1	FACU	2	3	5.3	3.5	4.4
Echinochloa crusgalli	0	FACW	1	3	2.6	3.5	3.1
NEPETA CATARIA	0	FAC-	1	3	2.6	3.5	3.1
SETARIA FABERI	0	FACU+	1	3	2.6	3.5	3.1
Ambrosia artemisiifolia elatior	0	FACU	1	2	2.6	2.4	2.5
BROMUS INERMIS	0	UPL	1	2	2.6	2.4	2.5
CHENOPODIUM ALBUM	0	FAC-	1	2	2.6	2.4	2.5
POLYGONUM CONVOLVULUS	0	FAC-	1	2	2.6	2.4	2.5
ABUTILON THEOPHRASTI	0	FACU-	1	1	2.6	1.2	1.9
CIRSIUM ARVENSE	0	UPL	1	1	2.6	1.2	1.9
Convolvulus sepium	1	FAC	1	1	2.6	1.2	1.9
Plantago rugelii	0	FAC	1	1	2.6	1.2	1.9
VERBASCUM BLATTARIA	0	FACU	1	1	2.6	1.2	1.9
			38	85			

Section 4. Plant Inventory & Transect String

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0	ABUTILON THEOPHRASTI	4	FACU-	Ad A-Forb	VELVETLEAF
ALLPET	0	ALLIARIA PETIOLATA	0	FAC	Ad B-Forb	GARLIC MUSTARD
AMBARE	0	Ambrosia artemisiifolia elatior	3	FACU	Nt A-Forb	COMMON RAGWEED
BOUCUR	8	Bouteloua curtipendula	5	UPL	Nt P-Grass	SIDE-OATS GRAMA
BROINE	0	BROMUS INERMIS	5	UPL	Ad P-Grass	HUNGARIAN BROME
CHEALB	0	CHENOPODIUM ALBUM	1	FAC-	Ad A-Forb	LAMB'S QUARTERS
CIRARV	0	CIRSIUM ARVENSE	5	UPL	Ad P-Forb	FIELD THISTLE
CONSEP	1	Convolvulus sepium	0	FAC	Nt P-Forb	HEDGE BINDWEED
CORVAR	0	CORONILLA VARIA	5	UPL	Ad P-Forb	CROWN VETCH
DIPLAC	0	DIPSACUS LACINIATUS	5	UPL	Ad B-Forb	CUT-LEAVED TEASEL
ECHCRU	0	Echinochloa crusgalli	-3	FACW	Nt A-Grass	BARNYARD GRASS
NEPCAT	0	NEPETA CATARIA	1	FAC-	Ad P-Forb	CATNIP
PANVIR	5	Panicum virgatum	-1	FAC+	Nt P-Grass	SWITCH GRASS
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	RED-STALKED PLANTAIN
POLCON	0	POLYGONUM CONVOLVULUS	1	FAC-	Ad A-Forb	BLACK BINDWEED
SETFAB	0	SETARIA FABERI	2	FACU+	Ad A-Grass	GIANT FOXTAIL
SOIL	0	SOIL	0	nil	nil	SOIL
SOLALT	1	Solidago altissima	3	FACU	Nt P-Forb	TALL GOLDENROD
SORNUT	5	Sorghastrum nutans	2	FACU+	Nt P-Grass	INDIAN GRASS
TAROFF	0	TARAXACUM OFFICINALE	3	FACU	Ad P-Forb	COMMON DANDELION
VERBLT	0	VERBASCUM BLATTARIA	3	FACU	Ad B-Forb	MOTH MULLEIN

TRANSECT STRING

>

QUAD	1
ACRONYM	COVER
BOUCUR	2
ECHCRU	3
PLARUG	1
SETFAB	3

>

QUAD	2
ACRONYM	COVER
BOUCUR	2
DIPLAC	1
PANVIR	2
SORNUT	3

>

QUAD	3
ACRONYM	COVER
AMBARE	2
DIPLAC	2
SOIL	4
SOLALT	1
TAROFF	2
VERBLT	1

>

QUAD	4
ACRONYM	COVER
BOUCUR	1
CONSEP	1
CORVAR	2
NEPCAT	3

>

QUAD	5
ACRONYM	COVER
BOUCUR	2
PANVIR	3

>

QUAD	6
ACRONYM	COVER
ALLPET	2
CORVAR	2
SOIL	4
SOLALT	2
TAROFF	2

>

QUAD	7
ACRONYM	COVER
ALLPET	2
CIRARV	1
CORVAR	4
POLCON	2

>

QUAD	8
ACRONYM	COVER
ALLPET	1
CORVAR	5

>

QUAD	9
ACRONYM	COVER
ABUTHE	1
CHEALB	2
CORVAR	2
SOIL	4
SORNUT	1

>

QUAD	10
ACRONYM	COVER
BROINE	2
CORVAR	5

Site: Blackwell Landfill Prairie - **Transect 3**
Locale: Warrenville - DuPage Co., IL
Date: September 25, 2002
By: CDF (Johnson)
File: c:\fqa\studies\blackwell2002t3.tra

Section 1. Summary of Quadrat Data

	TRANSECT DATA, QUADRAT									
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	0.0	0.0	0.0	0.0	-1.0	0.5	1	2	-1.8	0.0
2	1.7	1.0	2.9	2.2	-2.7	-0.4	3	5	-1.1	0.2
3	3.5	2.8	7.0	6.3	0.5	0.4	4	5	-0.4	0.4
4	3.3	2.6	6.5	5.8	1.0	1.2	4	5	0.6	0.9
5	4.3	2.2	7.5	5.3	0.3	1.2	3	6	0.3	1.1
6	0.0	0.0	0.0	0.0	-0.3	1.0	3	4	0.0	0.7
7	0.0	0.0	0.0	0.0	0.0	0.0	2	2	-0.9	0.5
8	0.0	0.0	0.0	0.0	-2.5	0.5	2	6	-1.1	0.4
9	1.3	0.7	2.3	1.6	-0.7	0.7	3	6	-2.1	-0.1
10	0.0	0.0	0.0	0.0	-3.0	-1.4	3	5	-1.8	-0.4
AVG	1.4	0.9	2.6	2.1	-0.8	0.4	2.8	4.6		
STD	1.7	1.2	3.2	2.7	1.4	0.8	0.9	1.5		

Section 2. Summary of Transect Data

C	NUMBER	
0	6	
1	1	
2	0	0 to 3
3	0	63.6%
4	1	
5	2	
6	0	4 to 7
7	0	27.3%
8	1	
9	0	8 to 10
10	0	9.1%

11	NATIVE SPECIES
19	TOTAL SPECIES
2.1	NATIVE MEAN C
1.2	W/Adventives
6.9	NATIVE FQI
5.3	W/Adventives
0.0	NATIVE MEAN W
1.1	W/Adventives

Native	11	57.9%	Adventive	8	42.1%
Tree	0	0.0%	Tree	0	0.0%
Shrub	0	0.0%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	0	0.0%	P-Forb	1	5.3%
B-Forb	0	0.0%	B-Forb	1	5.3%
A-Forb	4	21.1%	A-Forb	1	5.3%
P-Grass	4	21.1%	P-Grass	1	5.3%
A-Grass	3	15.8%	A-Grass	4	21.1%
P-Sedge	0	0.0%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
Cryptogam	0	0.0%			

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Nt A-Forb	12	38	26.1	29.9	28.0
Ad A-Grass	12	35	26.1	27.6	26.8
Nt A-Grass	8	22	17.4	17.3	17.4
Nt P-Grass	8	18	17.4	14.2	15.8
Ad P-Grass	2	7	4.3	5.5	4.9
Ad A-Forb	2	4	4.3	3.1	3.7
Ad B-Forb	1	2	2.2	1.6	1.9
Ad P-Forb	1	1	2.2	0.8	1.5

Section 3. Relative Importance Values

SPECIES RELATIVE IMPORTANCE VALUES

SCIENTIFIC NAME	C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
SETARIA FABERI	0	FACU+	7	23	15.2	18.1	16.7
Echinochloa crusgalli	0	FACW	6	19	13.0	15.0	14.0
Polygonum pensylvanicum	0	FACW+	5	18	10.9	14.2	12.5
Ambrosia artemisiifolia elatior	0	FACU	3	10	6.5	7.9	7.2
Ambrosia trifida	0	FAC+	3	9	6.5	7.1	6.8
Bouteloua curtipendula	8	UPL	3	9	6.5	7.1	6.8
SETARIA GLAUCA	0	FAC	3	9	6.5	7.1	6.8
Panicum virgatum	5	FAC+	3	6	6.5	4.7	5.6
POA PRATENSIS	0	FAC-	2	7	4.3	5.5	4.9
ABUTILON THEOPHRASTI	0	FACU-	2	4	4.3	3.1	3.7
Andropogon gerardii	5	FAC-	1	2	2.2	1.6	1.9
BROMUS JAPONICUS	0	FACU	1	2	2.2	1.6	1.9
LACTUCA SERRIOLA	0	FAC	1	2	2.2	1.6	1.9
Panicum capillare	1	FAC	1	2	2.2	1.6	1.9
CORONILLA VARIA	0	UPL	1	1	2.2	0.8	1.5
Elymus canadensis	4	FAC-	1	1	2.2	0.8	1.5
Erigeron canadensis	0	FAC-	1	1	2.2	0.8	1.5
LOLIUM MULTIFLORUM	0	UPL	1	1	2.2	0.8	1.5
Panicum dichotomiflorum	0	FACW-	1	1	2.2	0.8	1.5
			46	127			

Section 4. Vegetation Inventory & Transect String

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0	ABUTILON THEOPHRASTI	4	FACU-	Ad A-Forb	VELVETLEAF
AMBARE	0	Ambrosia artemisiifolia elatior	3	FACU	Nt A-Forb	COMMON RAGWEED
AMBTRI	0	Ambrosia trifida	-1	FAC+	Nt A-Forb	GIANT RAGWEED
ANDGER	5	Andropogon gerardii	1	FAC-	Nt P-Grass	BIG BLUESTEM GRASS
BOUCUR	8	Bouteloua curtipendula	5	UPL	Nt P-Grass	SIDE-OATS GRAMA
BROJAP	0	BROMUS JAPONICUS	3	FACU	Ad A-Grass	JAPANESE CHESS
CORVAR	0	CORONILLA VARIA	5	UPL	Ad P-Forb	CROWN VETCH
ECHCRU	0	Echinochloa crusgalli	-3	FACW	Nt A-Grass	BARNYARD GRASS
ELYCAN	4	Elymus canadensis	1	FAC-	Nt P-Grass	CANADA WILD RYE
ERICAN	0	Erigeron canadensis	1	FAC-	Nt A-Forb	HORSEWEED
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad B-Forb	PRICKLY LETTUCE
LOLMUL	0	LOLIUM MULTIFLORUM	5	UPL	Ad A-Grass	ITALIAN RYE GRASS
PANCAP	1	Panicum capillare	0	FAC	Nt A-Grass	OLD WITCH GRASS
PANDII	0	Panicum dichotomiflorum	-2	FACW-	Nt A-Grass	KNEE GRASS
PANVIR	5	Panicum virgatum	-1	FAC+	Nt P-Grass	SWITCH GRASS
POAPRA	0	POA PRATENSIS	1	FAC-	Ad P-Grass	KENTUCKY BLUE GRASS
POLPEN	0	Polygonum pensylvanicum	-4	FACW+	Nt A-Forb	PINKWEED
SETFAB	0	SETARIA FABERI	2	FACU+	Ad A-Grass	GIANT FOXTAIL
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	YELLOW FOXTAIL

TRANSECT STRING
>

QUAD	1
ACRONYM	COVER
AMBTRI	1
SETFAB	5

>

QUAD	2
ACRONYM	COVER
ABUTHE	2
ECHCRU	2
PANVIR	2
POLPEN	4
SETFAB	4

>

QUAD	3
ACRONYM	COVER
ANDGER	2
BOUCUR	4
PANCAP	2
POLPEN	3
SETGLA	4

>

QUAD	4
ACRONYM	COVER
AMBARE	3
BOUCUR	3
ECHCRU	3
PANVIR	2
SETFAB	3

>

QUAD	5
ACRONYM	COVER
ABUTHE	2
BOUCUR	2
ECHCRU	3
PANVIR	2
SETFAB	3
SETGLA	3

>

QUAD	6
ACRONYM	COVER
AMBARE	3
AMBTRI	4
ECHCRU	3
LOLMUL	1

>

QUAD	7
ACRONYM	COVER
AMBARE	4
ECHCRU	5

>

QUAD	8
ACRONYM	COVER
AMBTRI	4
CORVAR	1
POAPRA	3
POLPEN	2
SETFAB	3
SETGLA	2

>

QUAD	9
ACRONYM	COVER
BROJAP	2
ELYCAN	1
ERICAN	1
POAPRA	4
POLPEN	5
SETFAB	2

>

QUAD	10
ACRONYM	COVER
ECHCRU	3
LACSER	2
PANDII	1
POLPEN	4
SETFAB	3

Site: Blackwell Landfill Prairie - **Transect 4**
Locale: Warrenville - DuPage Co., IL
Date: September 25, 2002
By: CDF (Johnson)
File: c:\fqa\studies\blackwell2002t4.tra

Section 1. Summary of Quadrat Data

	TRANSECT DATA, QUADRAT									
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	3.0	1.8	5.2	4.0	0.7	2.0	3	5	-0.2	2.1
2	5.0	1.0	5.0	2.2	-1.0	2.2	1	5	0.9	2.1
3	6.0	3.6	10.4	8.0	3.0	2.2	3	5	1.2	2.2
4	3.3	2.2	6.5	5.3	1.5	2.2	4	6	3.2	2.7
5	8.0	1.6	8.0	3.6	5.0	3.8	1	5	2.5	2.5
6	4.0	1.3	6.9	4.0	1.0	1.7	3	9	2.6	2.3
7	2.8	2.0	6.3	5.3	1.8	1.6	5	7	1.4	1.5
8	4.5	2.0	9.0	6.0	1.5	1.3	4	9	2.2	1.9
9	3.8	2.7	8.5	7.2	3.4	2.9	5	7	2.4	2.1
10	3.5	1.8	7.0	4.9	2.3	2.1	4	8	2.8	2.5
AVG	4.4	2.0	7.3	5.1	1.9	2.2	3.3	6.6		
STD	1.6	0.7	1.7	1.7	1.6	0.7	1.4	1.6		

Section 2. Summary of Transect Data

C	NUMBER	
0	4	
1	2	
2	0	0 to 3
3	0	46.2%
4	1	
5	5	
6	0	4 to 7
7	0	46.2%
8	1	
9	0	8 to 10
10	0	7.7%

13	NATIVE SPECIES
28	TOTAL SPECIES
3.0	NATIVE MEAN C
1.4	W/Adventives
10.8	NATIVE FQI
7.4	W/Adventives
1.9	NATIVE MEAN W
2.5	W/Adventives

Native	13	46.4%	Adventive	15	53.6%
Tree	0	0.0%	Tree	0	0.0%
Shrub	0	0.0%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	4	14.3%	P-Forb	4	14.3%
B-Forb	0	0.0%	B-Forb	2	7.1%
A-Forb	2	7.1%	A-Forb	2	7.1%
P-Grass	6	21.4%	P-Grass	2	7.1%
A-Grass	1	3.6%	A-Grass	5	17.9%
P-Sedge	0	0.0%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
Cryptogam	0	0.0%			

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Nt P-Grass	18	37	27.3	27.8	27.5
Ad A-Grass	15	37	22.7	27.8	25.3
Ad P-Forb	8	13	12.1	9.8	10.9
Nt P-Forb	7	11	10.6	8.3	9.4
Nt A-Grass	4	12	6.1	9.0	7.5
Ad B-Forb	5	9	7.6	6.8	7.2
Nt A-Forb	4	6	6.1	4.5	5.3
Ad A-Forb	3	4	4.5	3.0	3.8
Ad P-Grass	2	4	3.0	3.0	3.0

Section 3. Relative Importance Values

SPECIES RELATIVE IMPORTANCE VALUES

SCIENTIFIC NAME	C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
SETARIA FABERI	0	FACU+	8	24	11.9	17.5	14.7
Bouteloua curtipendula	8	UPL	9	21	13.4	15.3	14.4
Echinochloa crusgalli	0	FACW	4	12	6.0	8.8	7.4
SETARIA GLAUCA	0	FAC	4	9	6.0	6.6	6.3
Panicum virgatum	5	FAC+	4	6	6.0	4.4	5.2
Rudbeckia hirta	1	FACU	3	6	4.5	4.4	4.4
Plantago rugelii	0	FAC	3	5	4.5	3.6	4.1
MELILOTUS ALBA	0	FACU	3	4	4.5	2.9	3.7
TRIFOLIUM HYBRIDUM	0	FAC-	3	4	4.5	2.9	3.7
CIRSIUM ARVENSE	0	UPL	2	5	3.0	3.6	3.3
LACTUCA SERRIOLA	0	FAC	2	5	3.0	3.6	3.3
Andropogon gerardii	5	FAC-	2	4	3.0	2.9	3.0
ABUTILON THEOPHRASTI	0	FACU-	2	3	3.0	2.2	2.6
Heliopsis helianthoides	5	UPL	2	2	3.0	1.5	2.2
RUMEX CRISPUS	0	FAC+	2	2	3.0	1.5	2.2
SOIL	0		1	4	1.5	2.9	2.2
Sorghastrum nutans	5	FACU+	1	3	1.5	2.2	1.8
Andropogon scoparius	5	FACU-	1	2	1.5	1.5	1.5
BROMUS INERMIS	0	UPL	1	2	1.5	1.5	1.5
Convolvulus sepium	1	FAC	1	2	1.5	1.5	1.5
FESTUCA ELATIOR	0	FACU+	1	2	1.5	1.5	1.5
LOLIUM MULTIFLORUM	0	UPL	1	2	1.5	1.5	1.5
TRIFOLIUM PRATENSE	0	UPL	1	2	1.5	1.5	1.5
Ambrosia artemisiifolia elatior	0	FACU	1	1	1.5	0.7	1.1
BROMUS JAPONICUS	0	FACU	1	1	1.5	0.7	1.1
Elymus canadensis	4	FAC-	1	1	1.5	0.7	1.1
ERIOCHLOA VILLOSA	0	UPL	1	1	1.5	0.7	1.1
HIBISCUS TRIONUM	0	UPL	1	1	1.5	0.7	1.1
Physalis subglabrata	0	UPL	1	1	1.5	0.7	1.1
			67	137			

Section 4. Vegetation Inventory & Transect String

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	0	ABUTILON THEOPHRASTI	4	FACU-	Ad A-Forb	VELVETLEAF
AMBARE	0	Ambrosia artemisiifolia elatior	3	FACU	Nt A-Forb	COMMON RAGWEED
ANDGER	5	Andropogon gerardii	1	FAC-	Nt P-Grass	BIG BLUESTEM GRASS
ANDSCO	5	Andropogon scoparius	4	FACU-	Nt P-Grass	LITTLE BLUESTEM GRASS
BOUCUR	8	Bouteloua curtipendula	5	UPL	Nt P-Grass	SIDE-OATS GRAMA
BROINE	0	BROMUS INERMIS	5	UPL	Ad P-Grass	HUNGARIAN BROME
BROJAP	0	BROMUS JAPONICUS	3	FACU	Ad A-Grass	JAPANESE CHESS

CIRARV	0	CIRSIUM ARVENSE	5	UPL	Ad P-Forb	FIELD THISTLE
CONSEP	1	Convolvulus sepium	0	FAC	Nt P-Forb	HEDGE BINDWEED
ECHCRU	0	Echinochloa crusgalli	-3	FACW	Nt A-Grass	BARNYARD GRASS
ELYCAN	4	Elymus canadensis	1	FAC-	Nt P-Grass	CANADA WILD RYE
ERIVIL	0	ERIOCHLOA VILLOSA	5	UPL	Ad A-Grass	CHINESE CUP GRASS
FESELA	0	FESTUCA ELATIOR	2	FACU+	Ad P-Grass	TALL FESCUE
HELHEL	5	Heliopsis helianthoides	5	UPL	Nt P-Forb	FALSE SUNFLOWER
HIBTRI	0	HIBISCUS TRIONUM	5	UPL	Ad A-Forb	FLOWER-OF-AN-HOUR
LACSER	0	LACTUCA SERRIOLA	0	FAC	Ad B-Forb	PRICKLY LETTUCE
LOLMUL	0	LOLIUM MULTIFLORUM	5	UPL	Ad A-Grass	ITALIAN RYE GRASS
MELALB	0	MELILOTUS ALBA	3	FACU	Ad B-Forb	WHITE SWEET CLOVER
PANVIR	5	Panicum virgatum	-1	FAC+	Nt P-Grass	SWITCH GRASS
PHYSUB	0	Physalis subglabrata	5	UPL	Nt P-Forb	TALL GROUND CHERRY
PLARUG	0	Plantago rugelii	0	FAC	Nt A-Forb	RED-STALKED PLANTAIN
RUDHIR	1	Rudbeckia hirta	3	FACU	Nt P-Forb	BLACK-EYED SUSAN
RUMCRI	0	RUMEX CRISPUS	-1	FAC+	Ad P-Forb	CURLY DOCK
SETFAB	0	SETARIA FABERI	2	FACU+	Ad A-Grass	GIANT FOXTAIL
SETGLA	0	SETARIA GLAUCA	0	FAC	Ad A-Grass	YELLOW FOXTAIL
SOIL	0	SOIL	0	nil	nil	SOIL
SORNUT	5	Sorghastrum nutans	2	FACU+	Nt P-Grass	INDIAN GRASS
TRIHYB	0	TRIFOLIUM HYBRIDUM	1	FAC-	Ad P-Forb	ALSIKE CLOVER
TRIPRA	0	TRIFOLIUM PRATENSE	5	UPL	Ad P-Forb	RED CLOVER

TRANSECT STRING

>

QUAD	1
ACRONYM	COVER
BOUCUR	1
CONSEP	2
ECHCRU	2
MELALB	1
SOIL	4
TRIPRA	2

>

QUAD	2
ACRONYM	COVER
BROINE	2
CIRARV	3
LACSER	3
PANVIR	1
SETFAB	3

>

QUAD	3
ACRONYM	COVER
BOUCUR	3
HELHEL	1
LACSER	2
PANVIR	2
SETFAB	3

>

QUAD	4
ACRONYM	COVER
AMBARE	1
ANDGER	1
BOUCUR	3
ECHCRU	4
LOLMUL	2
SETFAB	4

>

QUAD	5
ACRONYM	COVER
ABUTHE	2
BOUCUR	3
CIRARV	2
MELALB	1
SETFAB	4

>

QUAD	6
ACRONYM	COVER
BOUCUR	2
BROJAP	1
ECHCRU	3
ELYCAN	1
HIBTRI	1
MELALB	2
RUMCRI	1
SETFAB	3
SETGLA	3

>

QUAD	7
ACRONYM	COVER
BOUCUR	2
ECHCRU	3
PANVIR	1
PHYSUB	1
RUDHIR	2
SETFAB	2
SETGLA	2

>

QUAD	8
ACRONYM	COVER
ABUTHE	1
BOUCUR	3
PANVIR	2
PLARUG	1
RUMCRI	1
SETFAB	3
SETGLA	2
SORNUT	3
TRIHYB	1

>

QUAD	9
ACRONYM	COVER
ANDSCO	2
BOUCUR	2
FESELA	2
HELHEL	1
PLARUG	3
RUDHIR	2
TRIHYB	2

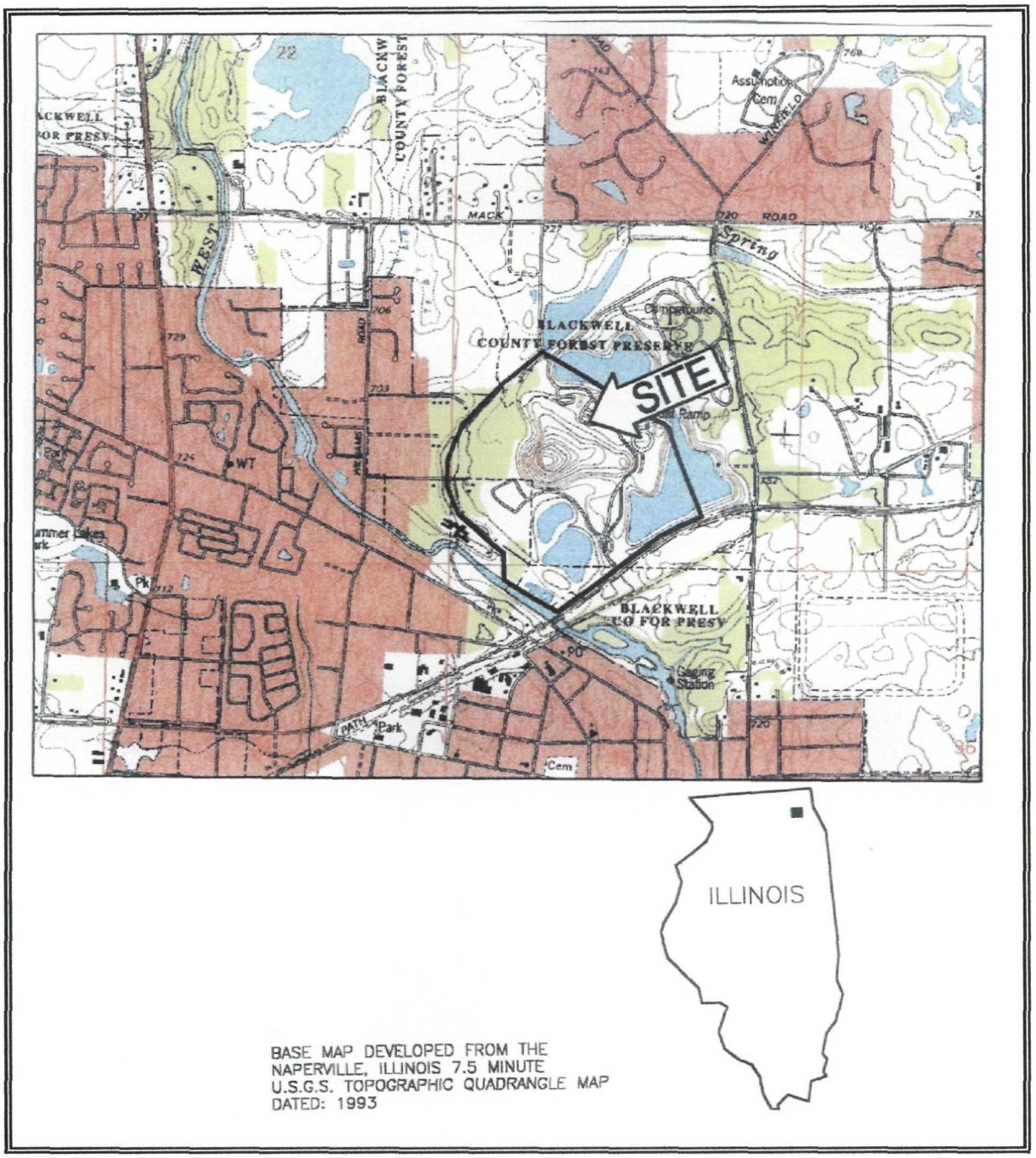
>

QUAD	10
ACRONYM	COVER
ANDGER	3
BOUCUR	2
ERIVIL	1
PLARUG	1
RUDHIR	2
SETFAB	2
SETGLA	2
TRIHYB	1

EXHIBITS

BLACKWELL LANDFILL PRAIRIE RESTORATION

Warrenville – DuPage County, Illinois



Project Number:
02043.00

Date:
December 2002

Scale:
Not to Scale

EXHIBIT A

PROJECT LOCATION MAP

CONSERVATION DESIGN FORUM

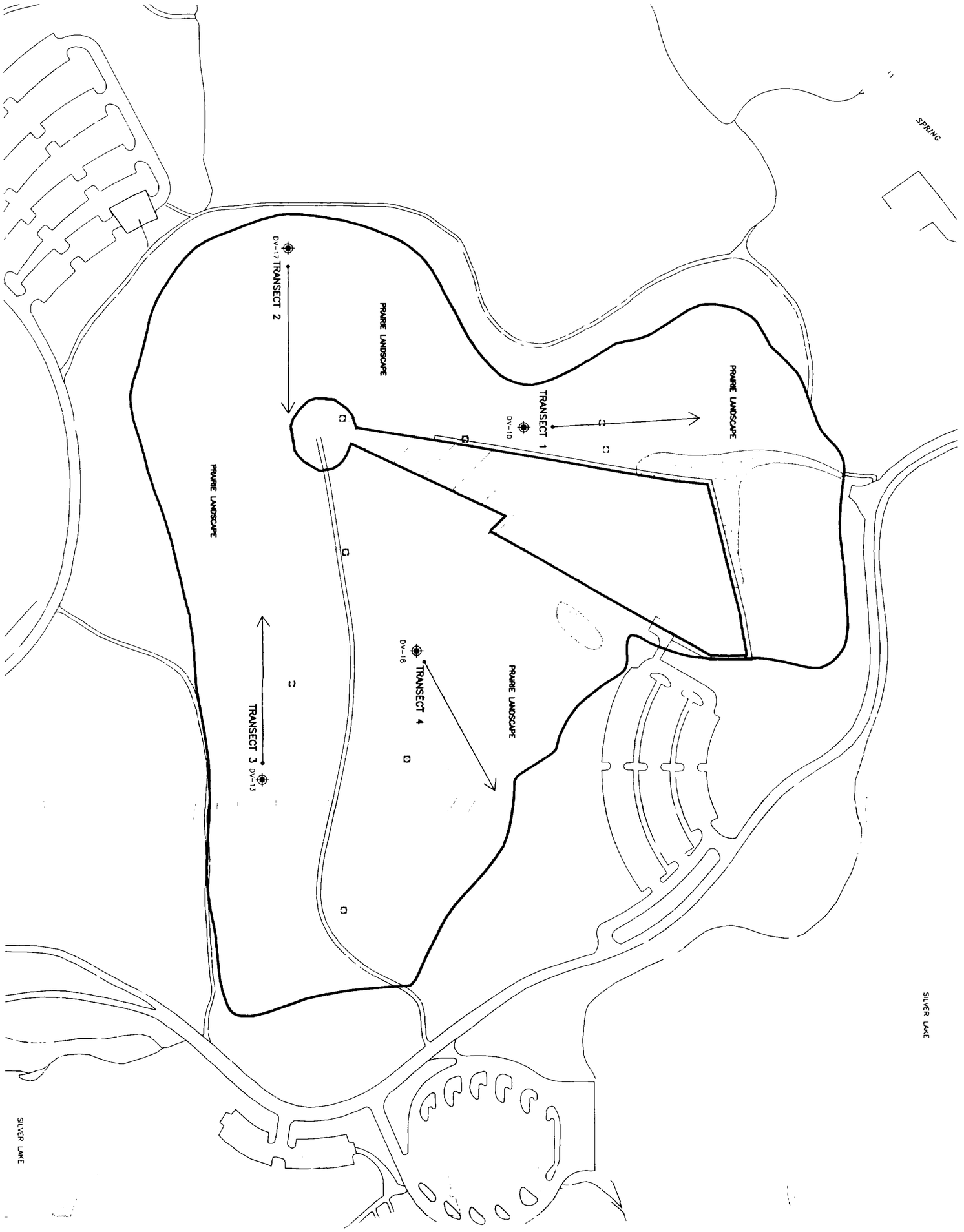


Exhibit B

Blackwell Landfill Prairie Restoration

Client:
Montgomery Watson Harza
27755 Diehl Road
Suite 300
Warrenville, Illinois 60555

Landscape Architecture
Community Planning
Ecological Restoration
Resource Management
375 West First Street
Elmhurst, Illinois 60126
630.559.2000 phone
630.559.2030 fax
CONSERVATION DESIGN FORUM

Project Number: 02043.00
Date: Dec. 2002
drawn by: HQ
Revisions:
1

PHOTOGRAPHS

ABOVE Field Thistle with herbicide damage.

BELOW Mowing portions of prairie landscape.

ABOVE & BELOW Mowed prairie landscape (some areas were not mowed where weeds were not a problem).

ABOVE Construction impacts in northwestern portion of prairie landscape.

BELOW Impacted area after final grading and seeding.

ABOVE Southeastern portion of site with compacted soils and erosional rills.

BELOW Erosional rill repair along gravel road.

ABOVE Cleaning debris prior to overseeding and hydromulch application.

BELOW Hydromulch over newly seeded areas on back slopes.

ABOVE Vegetation Monitoring Transect 1.

BELOW Vegetation Monitoring Transect 2.

ABOVE Vegetation Monitoring Transect 1.

BELOW Vegetation Monitoring Transect 2.

ABOVE Vegetation Monitoring Transect 3.

BELOW Vegetation Monitoring Transect 4.